

## CLAIMS

What is claimed is:

**[00043]** 1. A plain old telephone service (POTS) extender for at least one  
5 conductor pair for providing packets to a packet network and receiving packets from  
6 the packet network comprising:

7 a subscriber line interface circuit (SLIC) having a connection to the at  
8 least one conductor pair, said SLIC having a upstream voice signal output  
9 and a downstream voice signal input;

10 a codec for converting the upstream voice signal output to a upstream  
11 digital voice signal output and converting a downstream digital voice signal  
12 input to the downstream voice signal;

13 a vocoder for converting the upstream digital voice signal output to a  
14 first data stream and for converting a second data stream to the downstream  
15 digital voice signal input;

16 a packet assembler and disassembler (PAD) for converting the first  
17 data stream into a first at least one packet and for converting a second at  
18 least one packet into the second data stream, said PAD coupled to the packet  
19 network, said PAD having at least one network address; and

20 an output means for transmitting a master DSL modem control signal  
21 based on a fallback signal carried by the at least one conductor pair.

1 **[00044]** 2. The POTS extender of claim 1, wherein the output means  
2 further comprises:

3 a loop current detector having a connection to the at least one  
4 conductor pair, said loop current detector providing the master DSL modem  
5 control signal.

1 **[00045]** 3. The POTS extender of claim 1 wherein the SLIC further  
2 comprises:

3 a telephony current source;

4 switch hook detector; and

5 a ringing signal source.

- 1 [00046] 4. The POTS extender of claim 1 further comprising:  
2 a master DSL modem having at least one network address and  
3 connected to the at least one conductor pair.
- 1 [00046] 5. The local loop circuit of claim 4 wherein the at least one  
2 network address comprises at least one asynchronous transfer mode virtual circuit.
- 1 [00047] 6. The POTS extender of claim 1 wherein the at least one  
2 network address comprises at least one asynchronous transfer mode virtual circuit.
- 1 [00048] 7. A DSL suppression circuit for suppressing DSL modem  
2 operation on a local loop comprising:  
3 a loop current detector for sensing current drain on the local loop;  
4 a means for providing a suppression signal controllable by said loop  
5 current detector; and  
6 a master DSL modem operative coupled to the SLIC, said master DSL  
7 modem operating in a quiescent state upon receiving the suppression signal.
- 1 [00049] 8. The DSL suppression circuit of claim 7 wherein the means for  
2 providing a suppression signal comprises:  
3 a relay operable on a removal of power to connect a voice conductor  
4 pair to the local loop.
- 1 [00050] 9. A method for providing a customer premise line connection to  
2 a DSL modem comprising the steps of:  
3 detecting whether the line has a off-hook condition or an on-hook  
4 condition; and  
5 energizing a relay to couple the customer premise line to the DSL  
6 modem, providing the line has an on-hook condition.
- 1 [00051] 10. The method of claim 9 wherein the step of detecting an off-  
2 hook condition comprises the step of sensing current drain.
- 1 [00052] 11. The method of claim 9 further comprising the step of booting  
2 up a processor.
- 1 [00053] 12. The method of claim 9 wherein the step of energizing a relay  
2 comprises connecting the line to at least one subscriber line interface circuit (SLIC).

- [00054] 13. The method of claim 12 wherein the step of energizing a relay comprises connecting the DSL modem to a subscriber line.

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